

## REMARKS

Claims 1-8 are canceled and replaced by new claims 9-26. Support for the new claims is found in pages 26-39 and 45-50 of the specification. Unlike the canceled claims, which were rejected under 35 U.S.C. §§ 101 and 112, second paragraph, for failing to recite specific steps, the new claims all recite specific methodological steps. Accordingly, Applicants respectfully request that the rejections of the claims be withdrawn.

None of the cited prior art references suggest or provide motivation to one of ordinary skill in the art to make or use the claimed invention wherein:

data elements in the form of m-component vectors  $V = \sum_i V_i e_i$  are each represented in the memory by a set of the oligomers  $E_i$  and  $\underline{E}_i$  that are a subset of all single-stranded oligomers and are each in 1:1 correspondence with the basis vectors  $e_i$  for  $i = 1, 2, \dots, m$  in an abstract m-dimensional vector space; wherein oligomers  $E_i$  and  $\underline{E}_i$  have complementary nucleotide sequences, with  $E_i$  oligomers representing the  $i$ -th component of  $V$  for which the amplitude  $V_i$  is positive, and  $\underline{E}_i$  representing the  $i$ -th component of  $V$  for which  $V_i$  is negative; and wherein the concentration of each of oligomers  $E_i$  and  $\underline{E}_i$  is proportional to the magnitude of the amplitude  $V_i$  of the  $i$ -th component of  $V$ ; which are key elements of all of the new claims. Accordingly, Applicants respectfully submit that the claims are allowable over the prior art.

The Examiner is invited to contact the undersigned Applicant's representative if she thinks that an interview would be helpful in clarifying any issues associated with the prosecution of this application.

Respectfully submitted,

*Charles C. P. Rories*

Charles C. P. Rories (Reg. No. 43,381) for  
John W. Schneller (Reg. No. 26,031)

VENABLE

P.O. Box 34385  
Washington, D.C. 20043-9998  
Telephone : (202) 962-4800  
Direct Dial: (202) 962-4046  
Telefax : (202) 962-8300

JWS:CCR  
Dc2docs1# 180402